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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/734,262	12/11/2000	Mitsuharu Ohki	112857-224	4709

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EXAMINER

CHANG, JON CARLTON

ART UNIT	PAPER NUMBER
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2623

DATE MAILED: 04/16/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/734,262

Applicant(s)

OHKI ET AL.

Examiner

Jon Chang

Art Unit

2623

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 January 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 6-8 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 6-8 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 11 December 2000 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Response to Applicants' Amendment and Arguments

1. The amendment filed January 29, 2004, has been entered and made of record. Claims 1-5 have been cancelled. Claims 6-8 have been amended and are pending.

In response to the amendment, the objection to the disclosure is withdrawn.

Applicants' arguments have been fully considered, but they are not deemed to be persuasive for at least the following reasons. On page 8, Applicants argue that "Weighting of pixel values and juxtaposed pixel values is neither disclosed nor suggested by Watanabe." The Examiner disagrees. Watanabe does disclose weighting of pixel values and juxtaposed pixel values in paragraph [0041] and in drawing 3. Note from the paragraph that a weighting factor is carried out for **each pixel**. As clearly illustrated in drawing 3, weighting factors are provided for all pixels and juxtaposed pixel values, and therefore, weighting occurs for all pixel values and juxtaposed pixel values.

On pages 8-9, Applicants also argue that the Watanabe's teaching is significantly different from Applicants' invention. The Examiner disagrees. Applicants' disclosed invention removes the jaggy edge of a picture through weighting (The Examiner notes that this is not claimed, although whether it was or not would not be important with regard to the applicability of Watanabe.) Watanabe is similarly dealing with the degradation of edges due to dotage and blocks distortions, in images. It is well known that both dotage and block distortions may result in jagged edges ("jaggy" in Applicants'

terminology). However, the Examiner notes that Watanabe meets the plain language of the claim.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

4. Claims 6-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Japanese Published Patent Application 7-107294 to Watanabe.

Regarding claim 6, Watanabe discloses an image processing apparatus, comprising:

detection means for detecting presence or absence of a boundary line in the proximity of pixels (paragraph [0040]);

position calculation means for calculating positions of the boundary line with respect to the pixels (paragraph [0040]);

weighting means for weighting the pixel values of the pixels and juxtaposed pixels in accordance with the positions calculated by said position calculation means (paragraph [0041]; drawing 3); and

outputting means for outputting the pixels weighted by said weighting means (paragraph [0041], and Fig.1, output).

Watanabe does not explicitly disclose storage control means for controlling storage of a plurality of pixels inputted. The Examiner takes Official Notice that storage of pixels, and control means for controlling storage of the pixels is well known in the art. It would have been obvious to one of ordinary skill in the art to implement pixel storage and storage control in Watanabe's invention because it would have allowed for more efficient processing of the pixels, e.g., pixels would be held in order to calculate their difference.

Claim 7 is drawn to a method corresponding to claim 6. Remarks analogous to those presented above with regard to claim 6 are applicable.

Claim 8 is drawn to a recording medium on which a computer-readable program is recorded. The computer-readable program corresponds to the apparatus of claim 6 and method of claim 7. The remarks provided above for claims 6 and 7 are therefore applicable. Watanabe does not disclose a recording medium or computer-readable

program. However, the Examiner takes Official Notice that the use of computers is well known in the art. Given their wide availability, low cost, and flexibility, it would have been obvious to one of ordinary skill in the art to utilize a computer to implement Watanabe's invention. In doing so, the computer-readable program and the recording medium would be inherent in the combination.

Conclusion

5. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).


A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jon Chang whose telephone number is (703)305-8439. The examiner can normally be reached on M-F 8:00 a.m.-6:00 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Amelia Au can be reached on (703)308-6604. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Jon Chang
Primary Examiner
Art Unit 2623

Jon Chang
April 13, 2004